

Fig. 1a

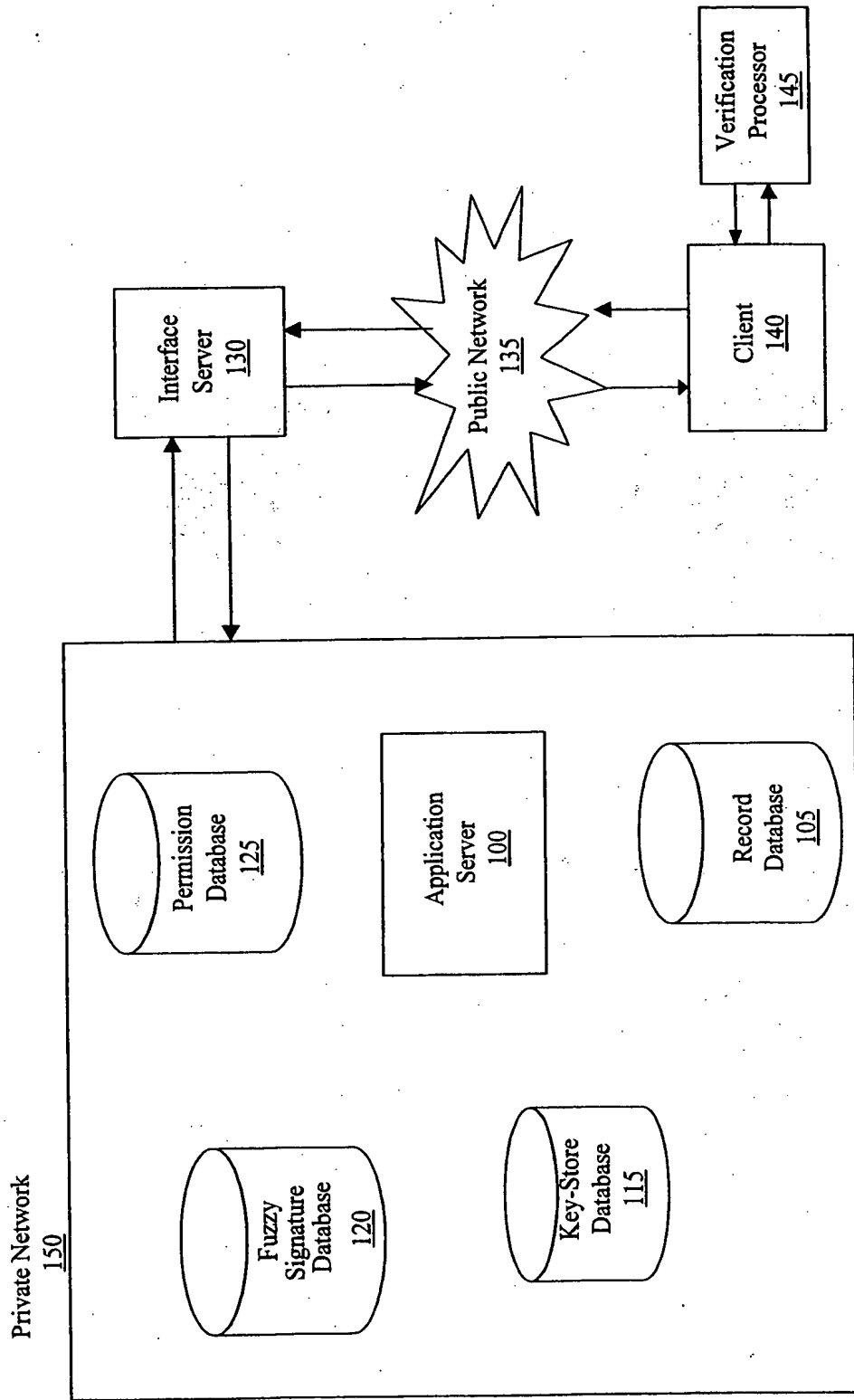
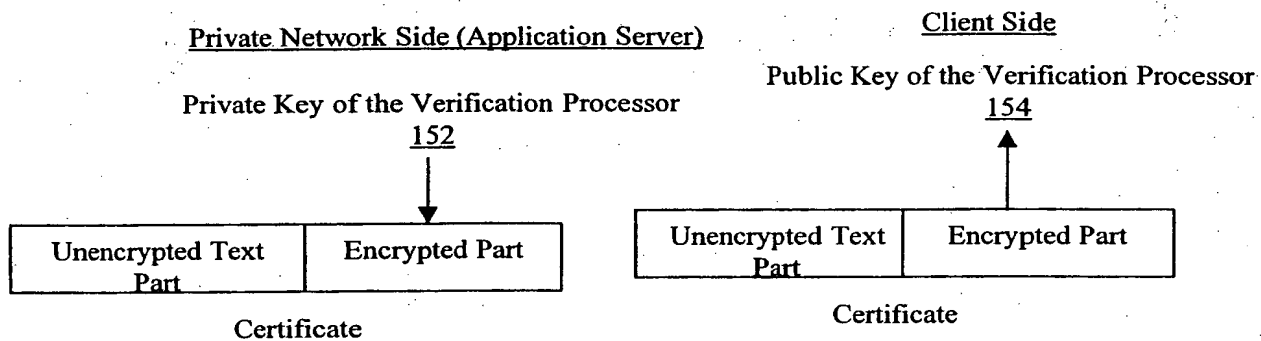




Fig. 1b

Keys Used for Authenticating the
Interface Server



Key: ↓ = Encryption ↑ = Decryption



Fig. 1c

Keys Used in Transmitting, Receiving,
and Storing Data

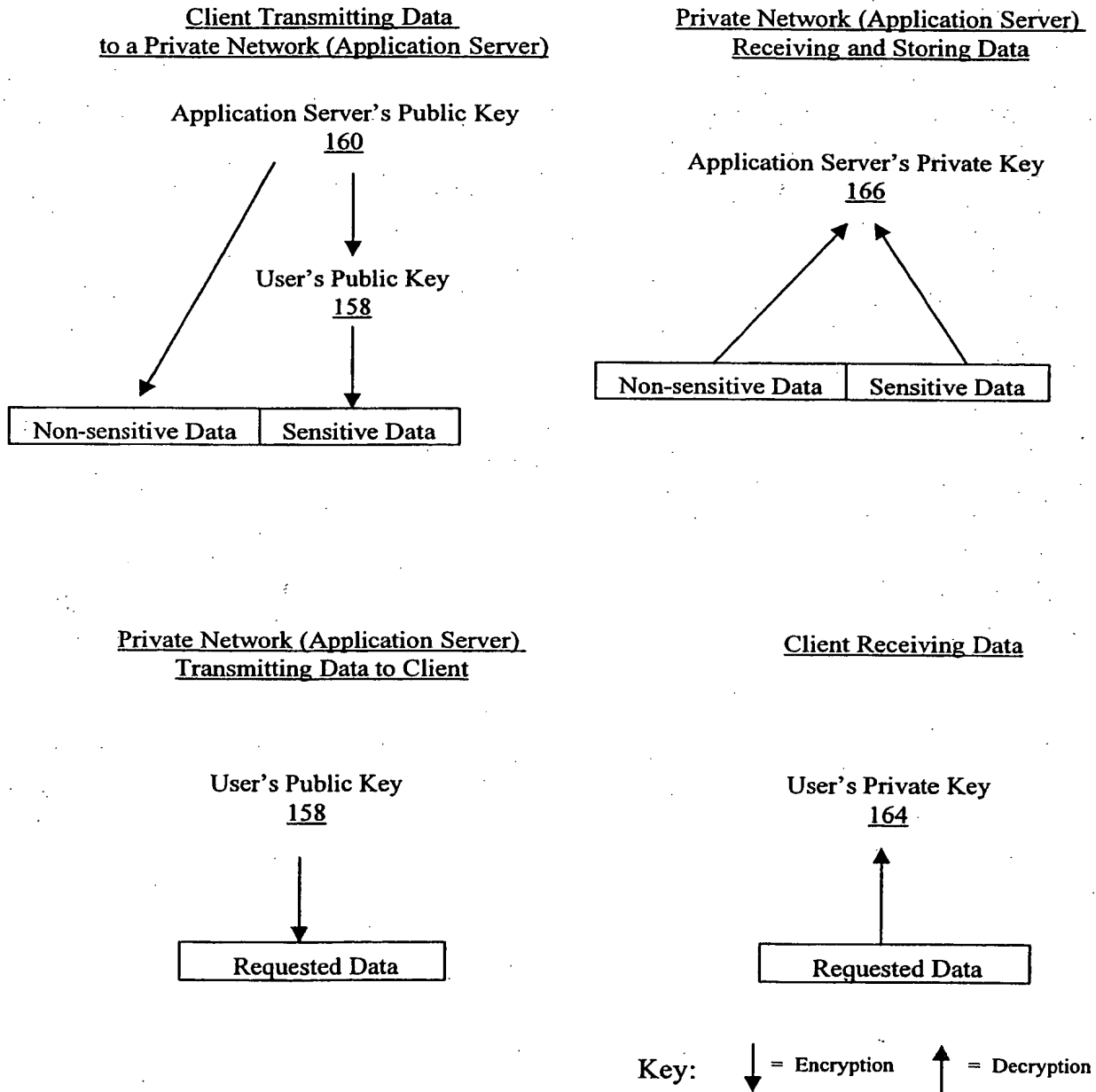
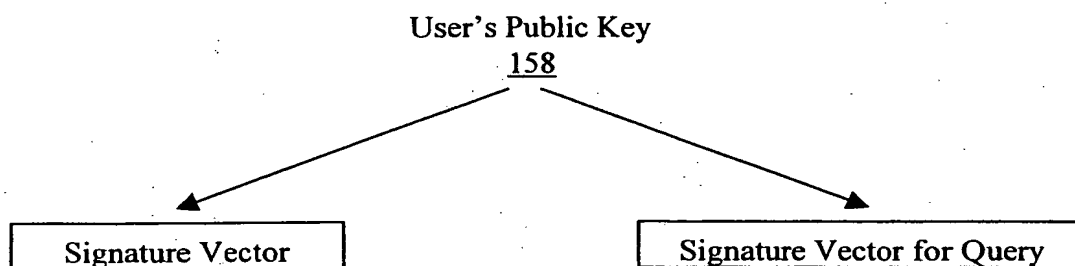




Fig. 1d

Keys Utilized in Fuzzy Searching

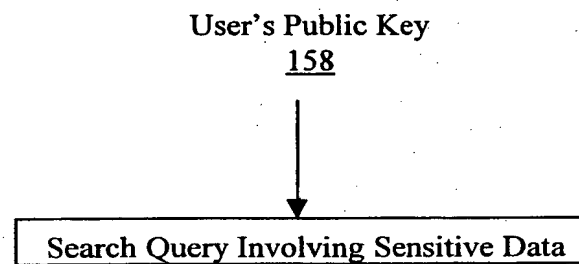


Key: ↓ = Encryption ↑ = Decryption



Fig. 1e

Keys Utilized in Relational Database Searching



Key: ↓ = Encryption ↑ = Decryption

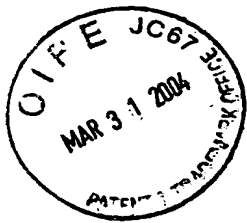
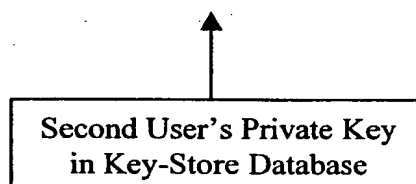


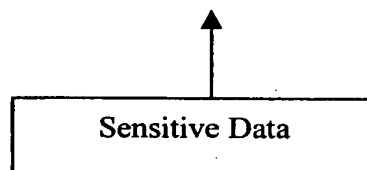
Fig. 1f

Keys Utilized in Accessing Sensitive Data

First User's Key-Store Master Key
168



Second User's Private Key
164



Key: ↓ = Encryption ↑ = Decryption

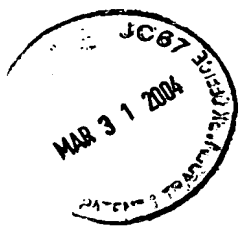


Fig. 1h

Steps for Communications between a Client and a Private Network

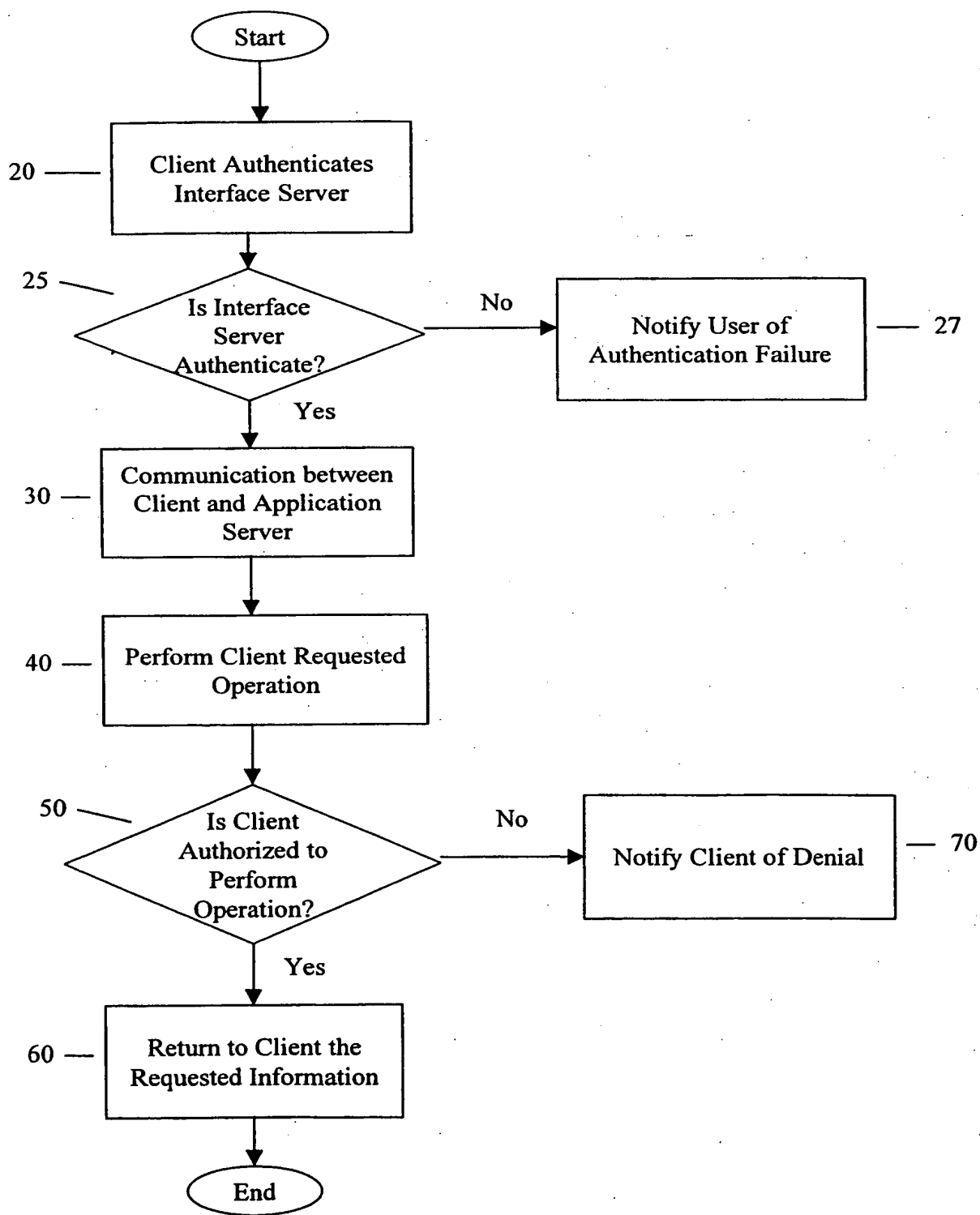




Fig. 2

Authentication

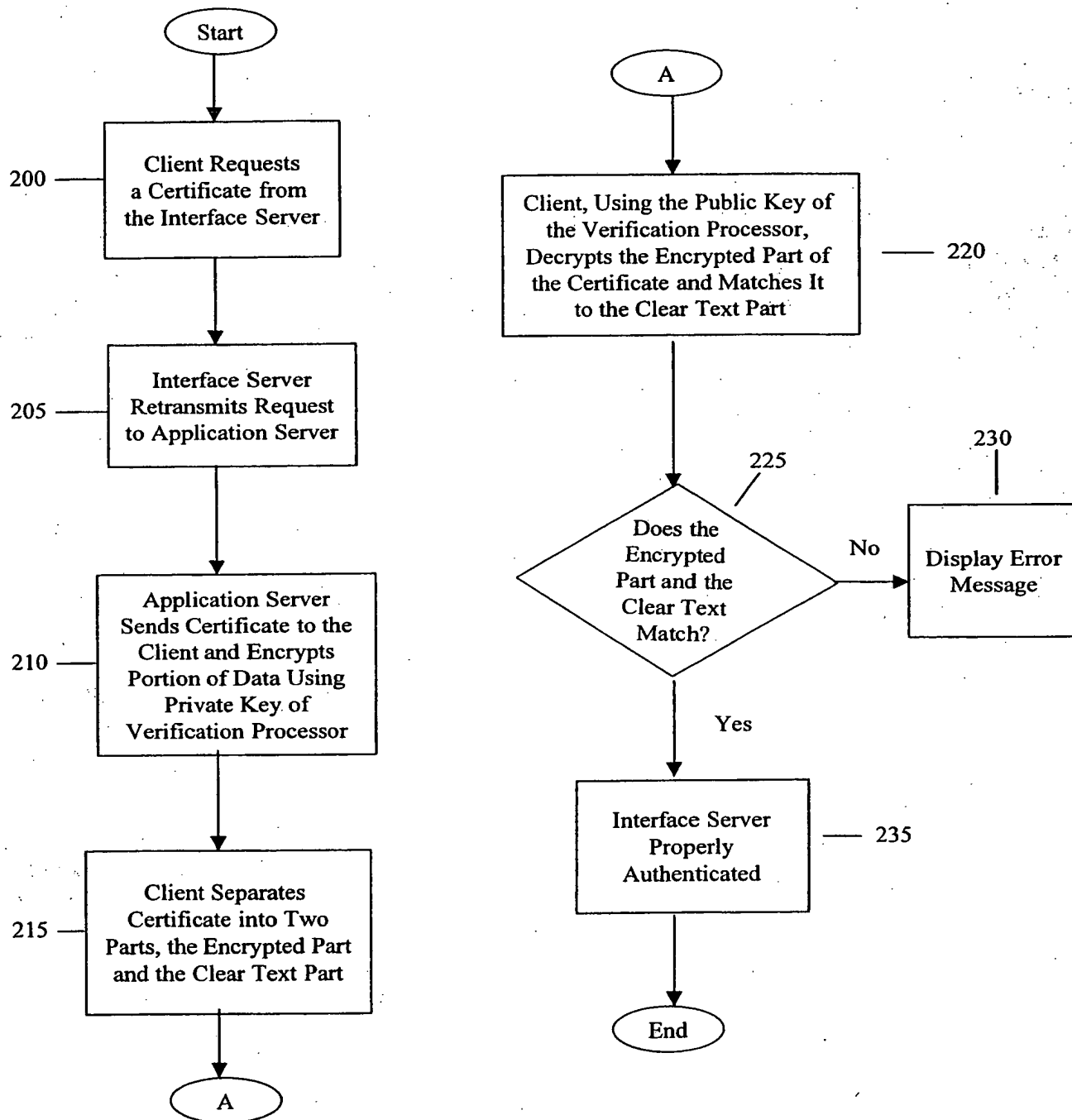




Fig. 3

Transmission and Storage of Data

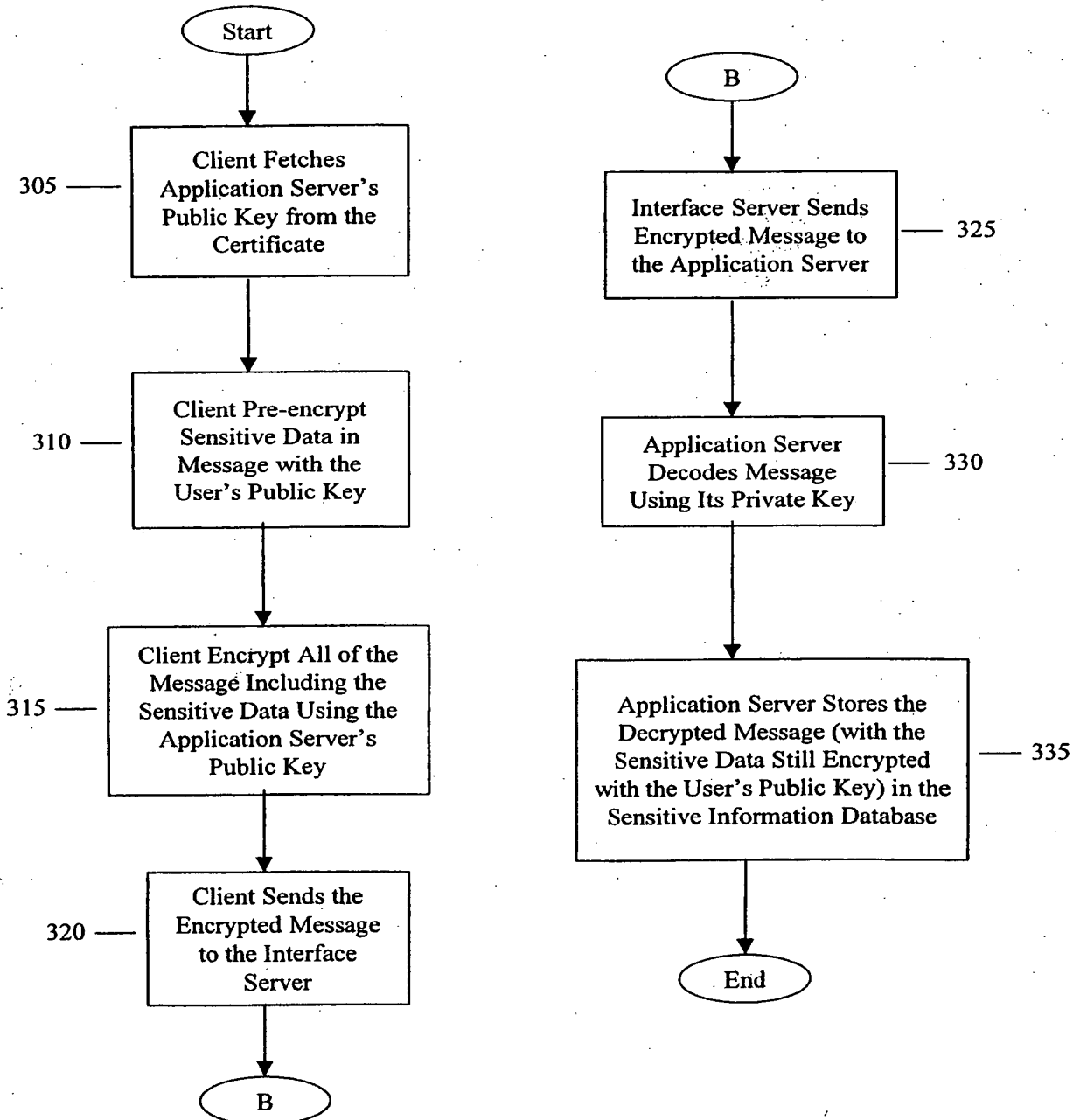




Fig. 4

Search Operation

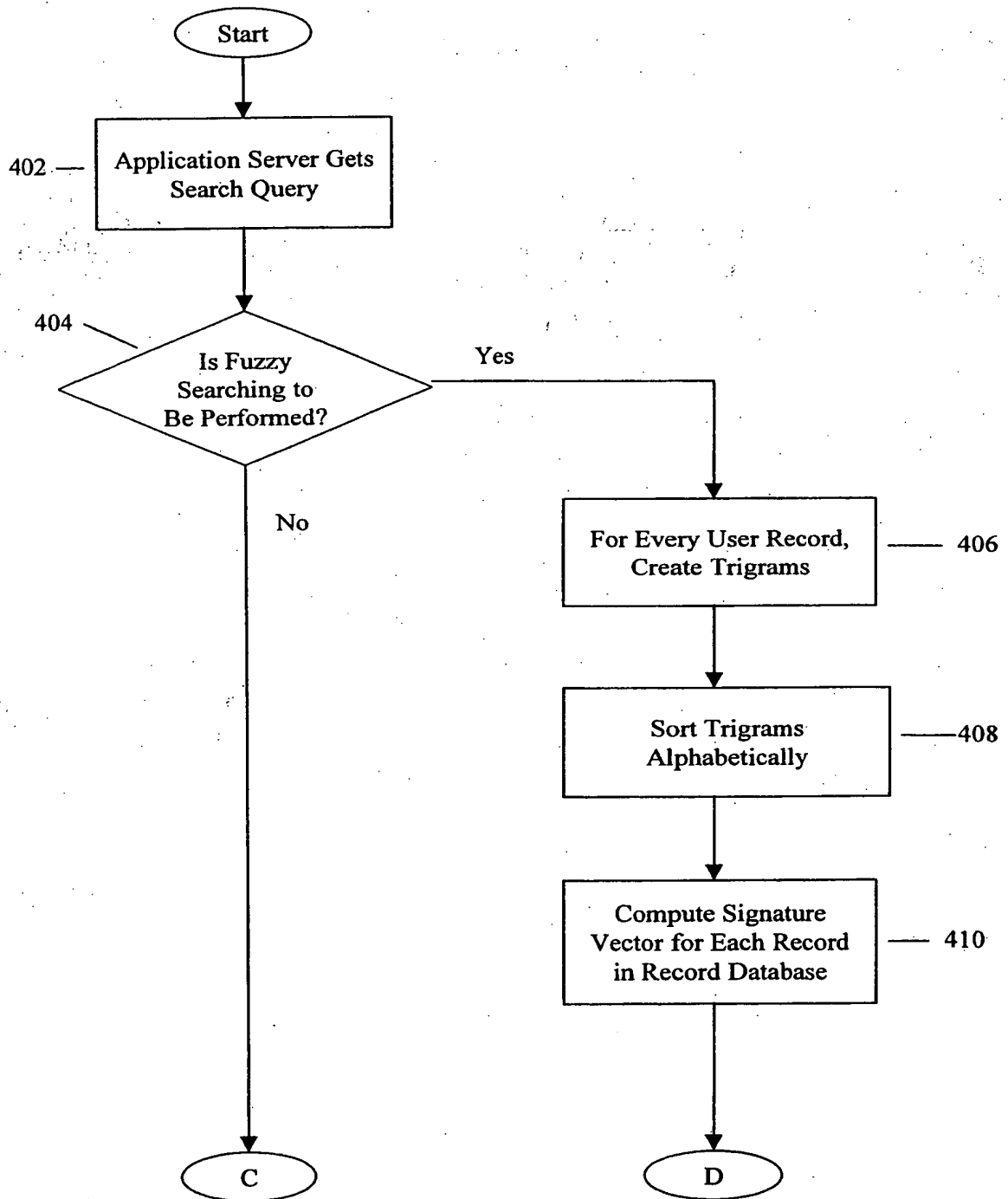




Fig. 4

Search Operation

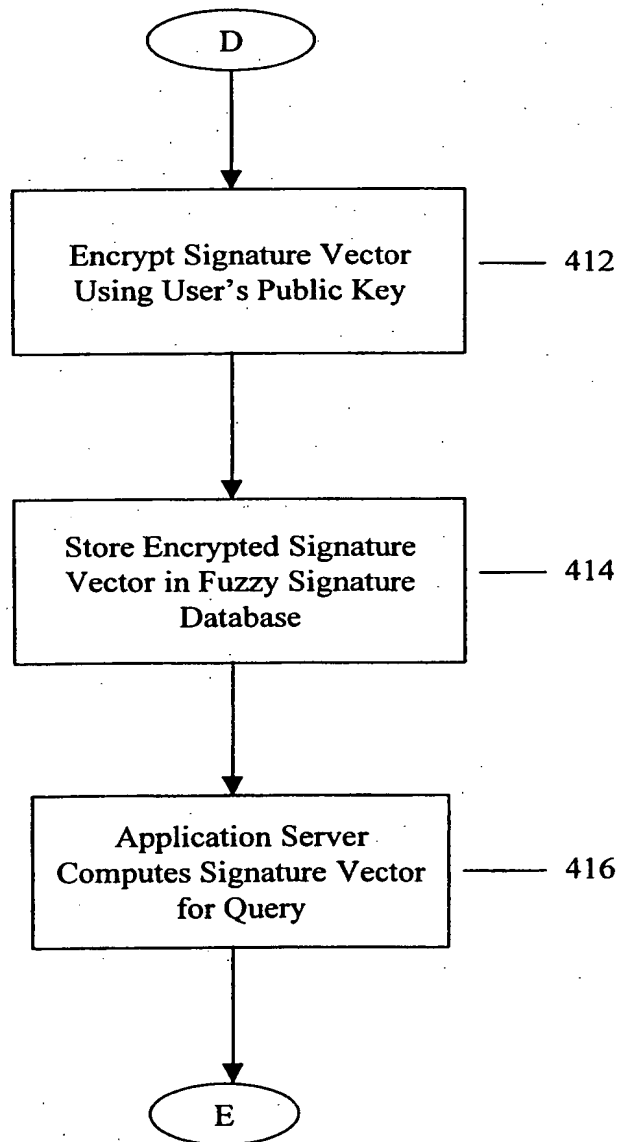
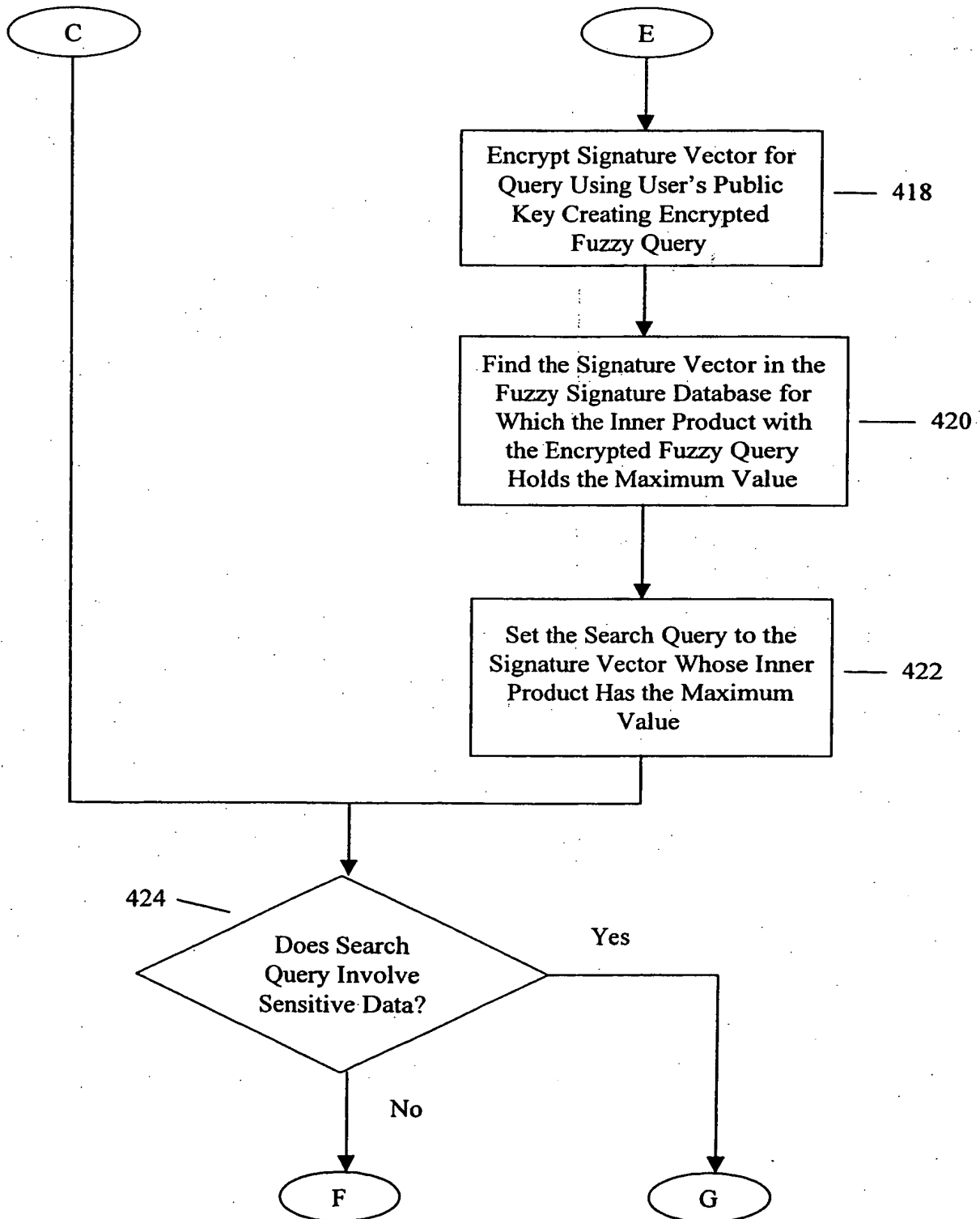




Fig. 4
Search Operation



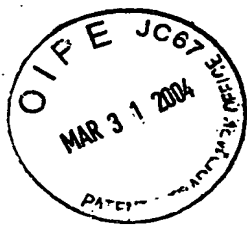
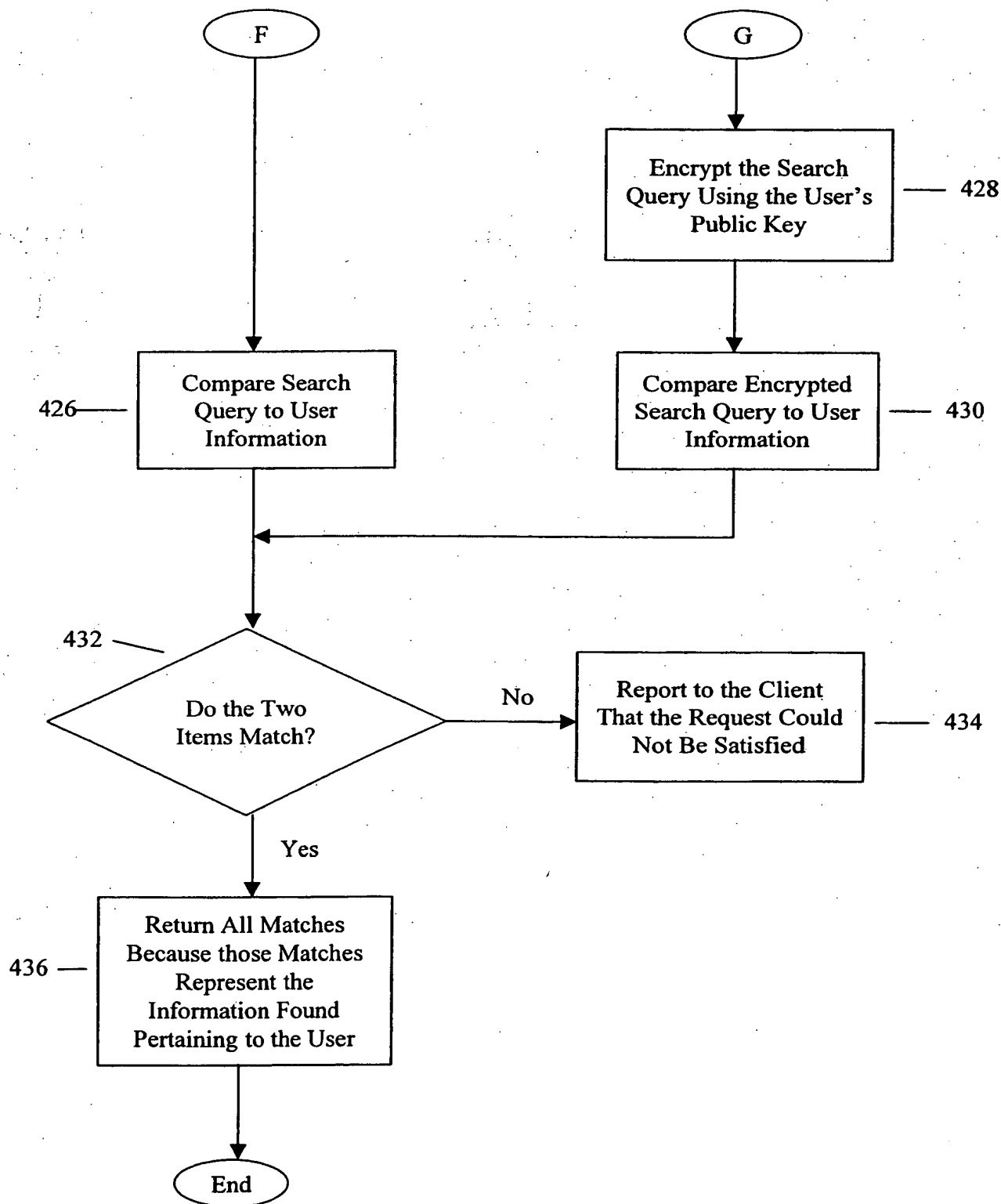


Fig. 4
Search Operation



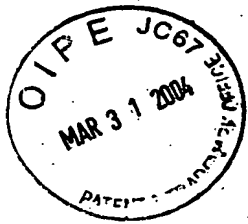


Fig. 5
Accessing Sensitive Data

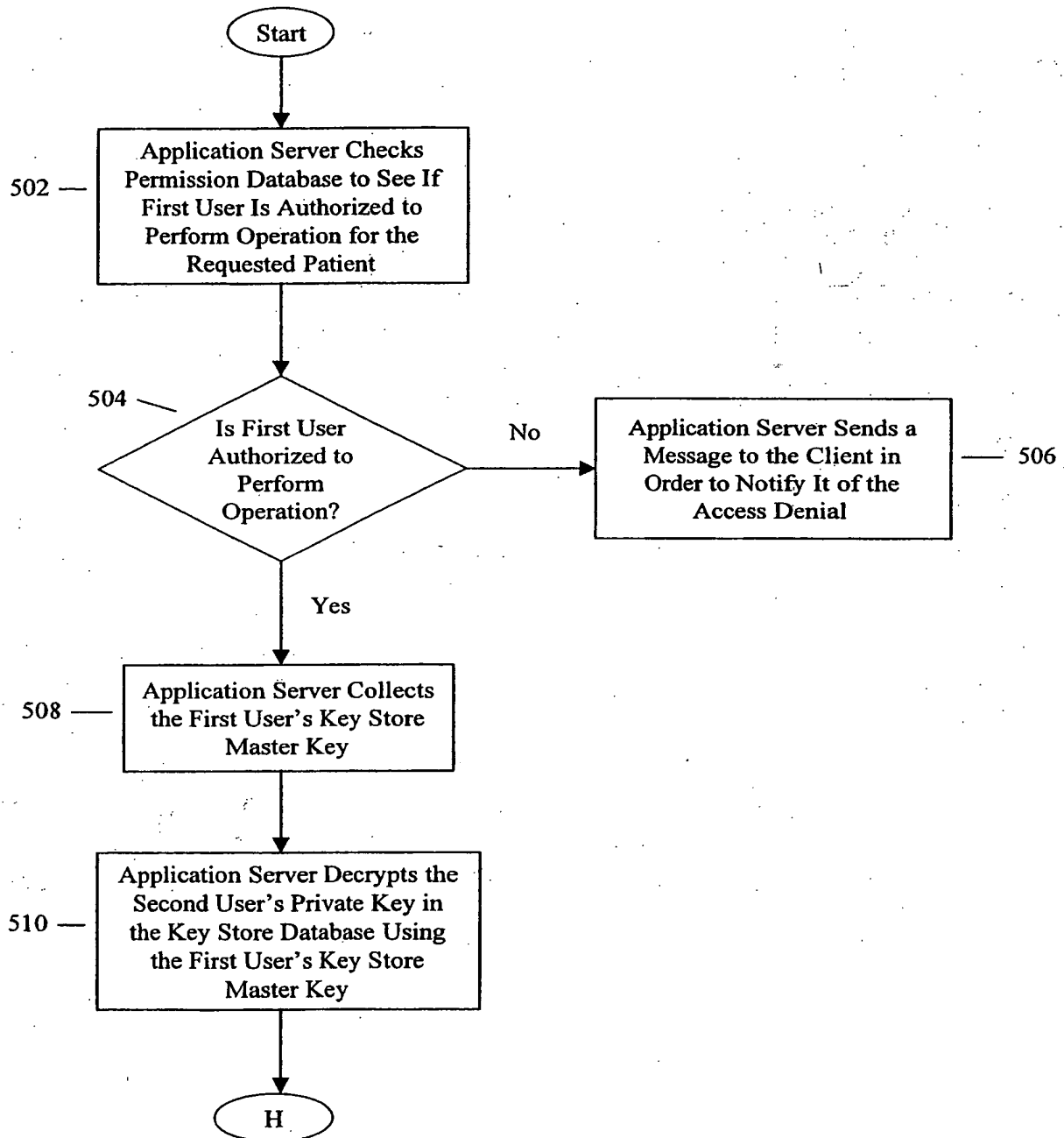




Fig. 5

Accessing Sensitive Data (Cont.)

